



# American Petroleum Institute

April 12, 2016

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# Outline

- Criterion Research overview
- US and global inventories, past and present
- US refining system, capacity and margins
- US gasoline and distillate estimated exports
- Global and US estimated oil production
- US natural gas inventory levels and projections
- Summary and conclusions

# Who is Criterion Research?

## Meet the Principals

### **Kyle Cooper – Research**

Kyle Cooper is a founding partner of Criterion Research, a Houston based research and data aggregation firm. Kyle leads fundamental analysis for Criterion to capitalize on the vast amount of unstructured data in the market. Prior to Criterion, Kyle Cooper was Managing Director of Research for Cypress Energy Capital Management, a Houston based natural gas specific commodity hedge fund. Kyle continues to provide fundamental analysis to IAF Advisors clients, a consulting firm he founded in 2006.

Kyle began his energy trading career at Salomon Smith Barney and held analysis roles at Koch, El Paso and TXU. He returned to Smith Barney/Citigroup in 2000 as a Vice President for energy futures research. He left Citigroup in 2006 to join Velite Capital Management as Managing Director of Research. He left Velite to form BTU Capital Management in 2010 prior to joining Cypress. After more than two decades of analysis and hands-on trading in the energy sector, Kyle decided to join forces with John to develop a single tool that could associate information to solid fundamental analysis quickly and concisely. The combination of John's technology skills combined with Kyle's broad industry experience provides a unique and unmatched fundamental data tool.

Kyle has consistently been near the top of weekly natural gas storage forecast surveys in accuracy and is commonly quoted in industry publications as well as appearing on CNBC.

### **John Best – Technology**

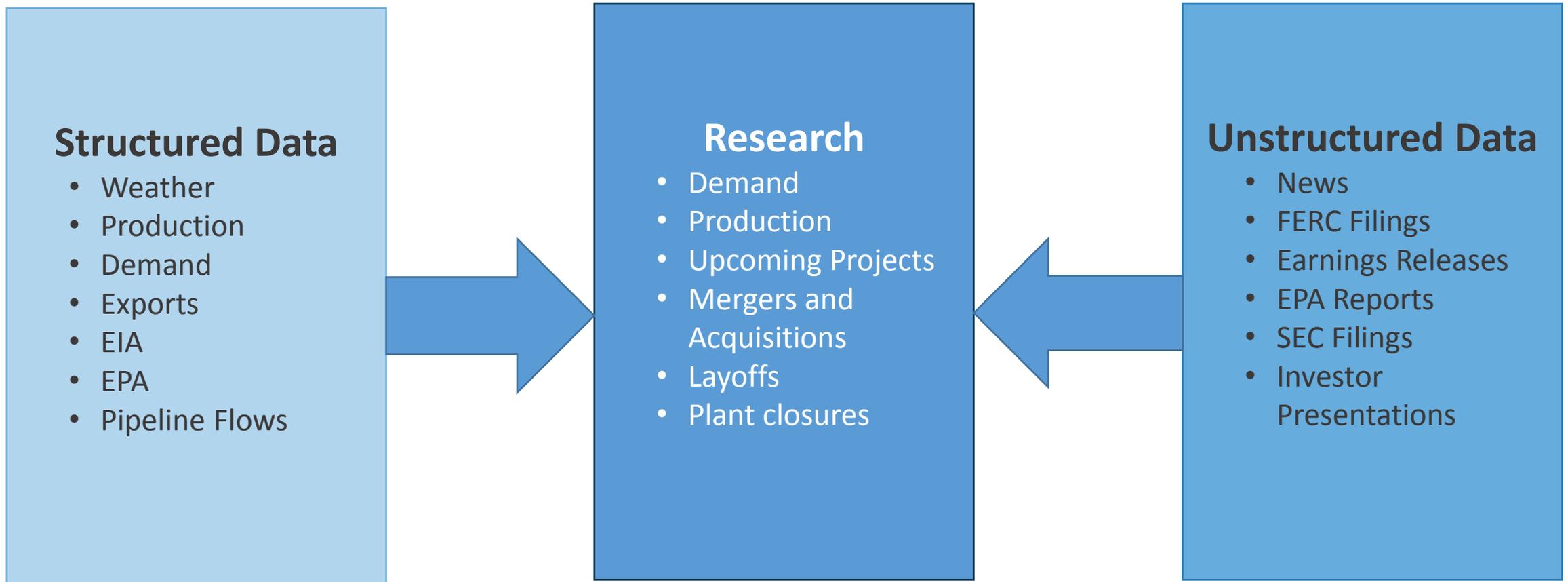
John Best is a founding partner of Criterion Research, a Houston based research and data aggregation firm. John leads the technology development for Criterion to capitalize on the vast amount of unstructured data in the market. Prior to Criterion, John Best was the Vice President of Research and Product Development for IIR Energy, which provided infrastructure information on energy assets, as well as real-time tracking of planned and unplanned power generation outages, refinery turnarounds, and midstream natural gas disruptions that affect the trading community. In 2012, John sold his previous data aggregation company, TCT Data, to IIR Energy in order to capitalize on their combined data sets.

After more than a decade of analysis and hands-on trading in the energy sector, John realized the need for a single tool that could aggregate the large amounts of data fundamental to the energy-trading community. This prompted John to develop proprietary software that could quickly and efficiently pull in massive amounts of data and use automated quantitative analysis models to provide options valuation and flexible data comparisons for trading in the power, crude oil and natural gas markets.

John holds a Bachelor of Science in Business Administration specializing in accounting and finance from Creighton University and remains a Certified Public Accountant in Texas.

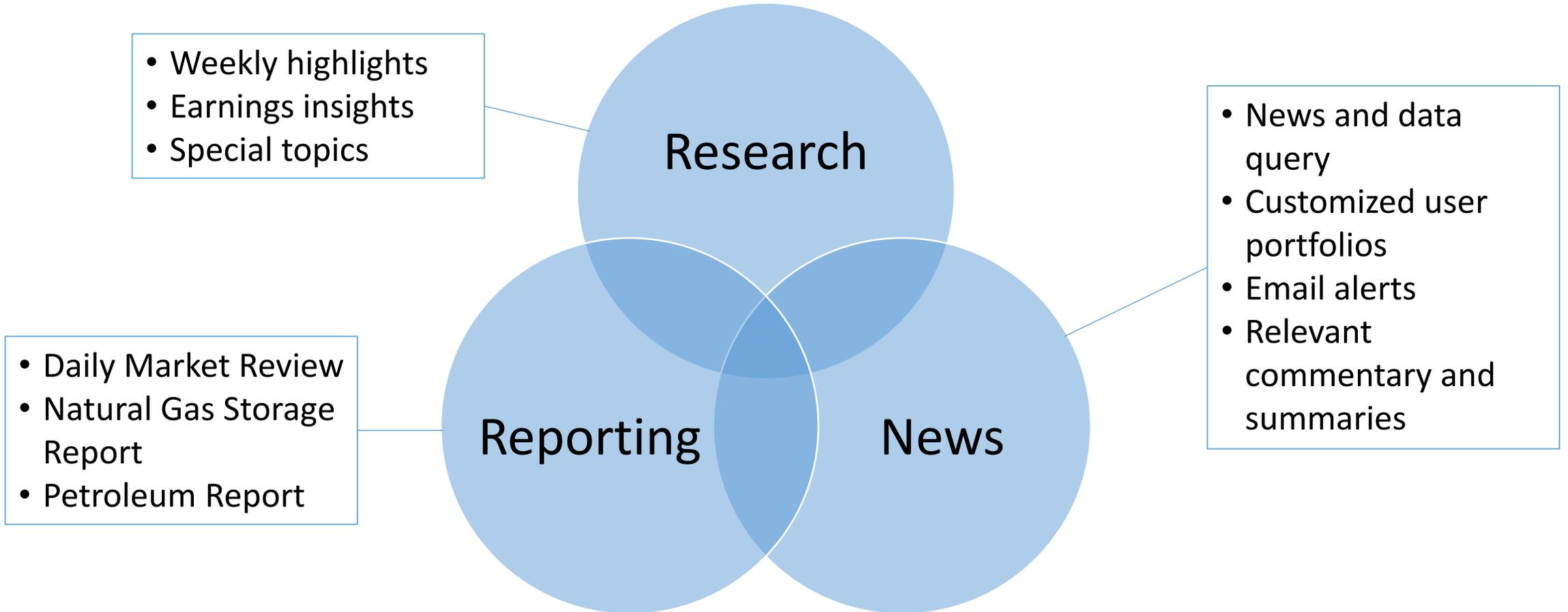
# What Makes Criterion Unique?

Technology designed to integrate diverse data sets



# Three Legs of Service

Bringing together all the pieces



# Research

Driven from market driving news and fundamentals

- Research is driven from the key market news and analysis
- 4<sup>th</sup> quarter earnings season provided numerous insights on the resource markets

## Summary

This week we focus on the EIA's monthly productivity report.

Net New Nat Gas Volumes by Region

## Summary

This week we focus on the upcoming climatic changes that always

National Temperature Index

## Summary

This week we focus on the impending LNG export facilities that are in various stages of development in North America

Project	State	Company	Start Up	Bcf/d
Sabine Pass 1 & 2	LA	Cheniere Energy	2015	1.38

## Summary

This week we focus on the combined CFTC managed money net short position.

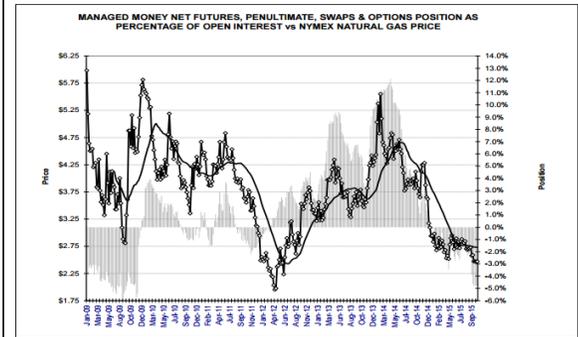
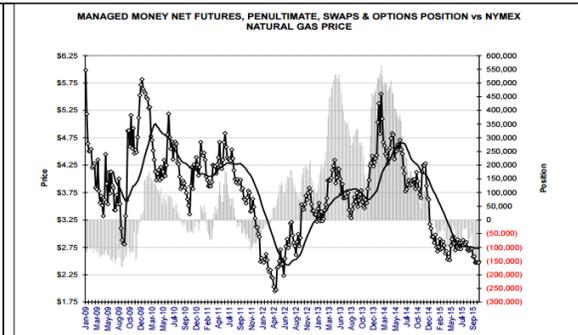
While this is not a traditional supply/demand fundamental, it is an important market factor. As all markets ebb and flow, excessive exuberance and pessimism develop. This is typical and occurs across all classes of markets with one of the most noteworthy examples the famous tulip bulb market in 17<sup>th</sup> century Holland.

With the advent of financial reporting, measures of the degree of speculative froth can be measured and compared more accurately. In the case of commodity futures, the CFTC aggregates participant's positions and reports these weekly.

We view the position on both an absolute basis as well as a percentage of the overall market.

In this context, on both an absolute and percentage basis, the current net short position is quite large and possibly more relevant is the rapid increase of the net short position in recent weeks.

As revealed by the price action, sharp price reversals are not guaranteed and prices can remain inflated or depressed for quite some time. Still, large moves in the speculative position are noteworthy and are considered a warning sign that a change in the price trend may be in the works.



# Reporting

Providing timely information on storage and other market drivers

## Sample Commentary

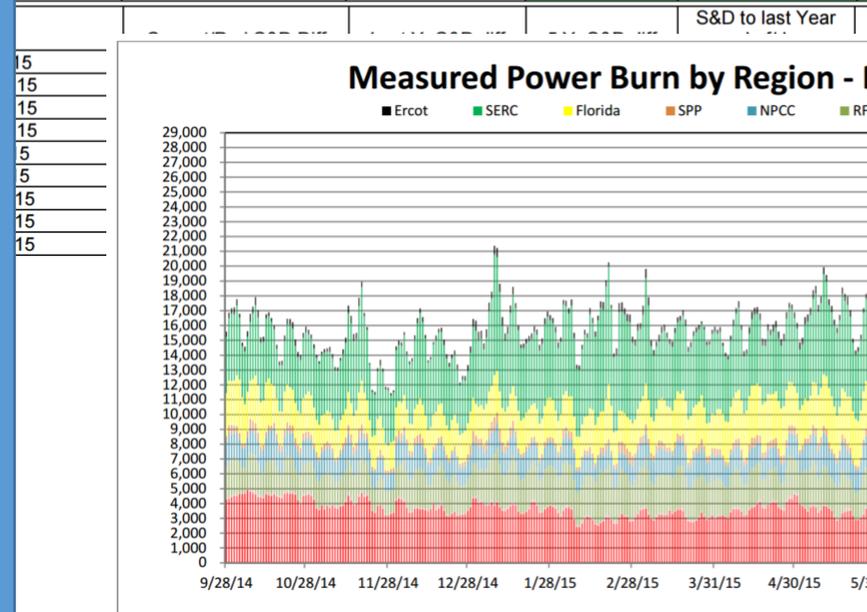
WX was bearish with net change +4.4 bcf higher injection across the forecast. The largest weekly change was +3.1 in 10/23.

10/23 increased +5 from +70 to +75. Temp adj daily storage has spiked recently and implies still large weekly builds.

Even after revisions yesterday, US production is well off recent peaks at 72.7 bcf and just 71.7 bcf today. Today should be revised higher. Total demand is still quite strong at +5.0 today with yesterday revised to +6.0. The 7 day average is +6.0.

Nukes had 2 up and 1 down with net +142 MW higher to 79,848 MW, down (4,329) MW YOY. Net of capacity changes was +213 MW higher. There are 16 units offline with 16,239 MW of capacity offline.

Date	Actual EIA	Current Prediction	Temps	Storage Model	Temp change on day
15	68	74	77.7	55.0	
15	73	73	77.7	54.5	
15	106	98	72.5	88.9	
15	98	100	72.3	87.4	
5	0	99	70.2	92.7	
5	0	95	65.2	86.2	
15	0	95	67.6	89.0	
15	0	75	62.3	71.1	
15	0	50	58.9	43.2	



## Key Features

- Proprietary temperature forecasts
- Storage forecasts from Kyle Cooper, consistently ranked in the top forecasters
- Production forecasts
- Crude oil analysis
- CFTC and changes in open interest
- Volatility curves

# News

Bringing the unstructured data together with the structured

**PBF Energy Agrees to Purchase Chalmette Refining, L.L.C. in Louisiana**  
[Company Website](#)

ExxonMobil and its affiliates signed agreements with PBF Energy, Inc. for the sale of our 50 percent stake in Chalmette Refining LLC. Simultaneously, Petróleos de Venezuela S.A. (PDVSA) and its affiliates signed agreements with PBF for the sale of its 50 percent share. Subject to regulatory approval, the change in control is anticipated to take place by the end of 2015; ExxonMobil will continue to operate the site until that time. Details of the commercial agreements are proprietary. This transaction directly impacts the approximately 530 employees at the Chalmette refinery, MOEM Pipeline LLC, Collins Pipeline Company, and T&M Terminal Company. ExxonMobil operates Chalmette Refining LLC, and Mobil Pipeline Company, an ExxonMobil affiliate, operates the logistics infrastructure. Prior to change in control, we anticipate all employees will be offered positions with PBF. Affected employees have been notified, and both ExxonMobil and PBF management will be sharing additional information with employees in the coming days and weeks.

**Entities**  
[Exxon Mobil Corporation](#)  
[PBF Energy Inc.](#)  
[Petróleos de Venezuela S.A. \(PDVSA\)](#)

**Assets**  
[Chalmette Refinery](#)

**Countries**  
United States

**States**  
Louisiana

**Categories**  
Oil and Gas  
Downstream

**Commodities**  
Crude Oil

**Tags**  
Mergers/Acquisitions

**News**

- Articles
- FERC Filings
- SEC Filings
- Earnings Releases

**Entities**

- Companies
- Government Entities
- Internationals

**Assets**

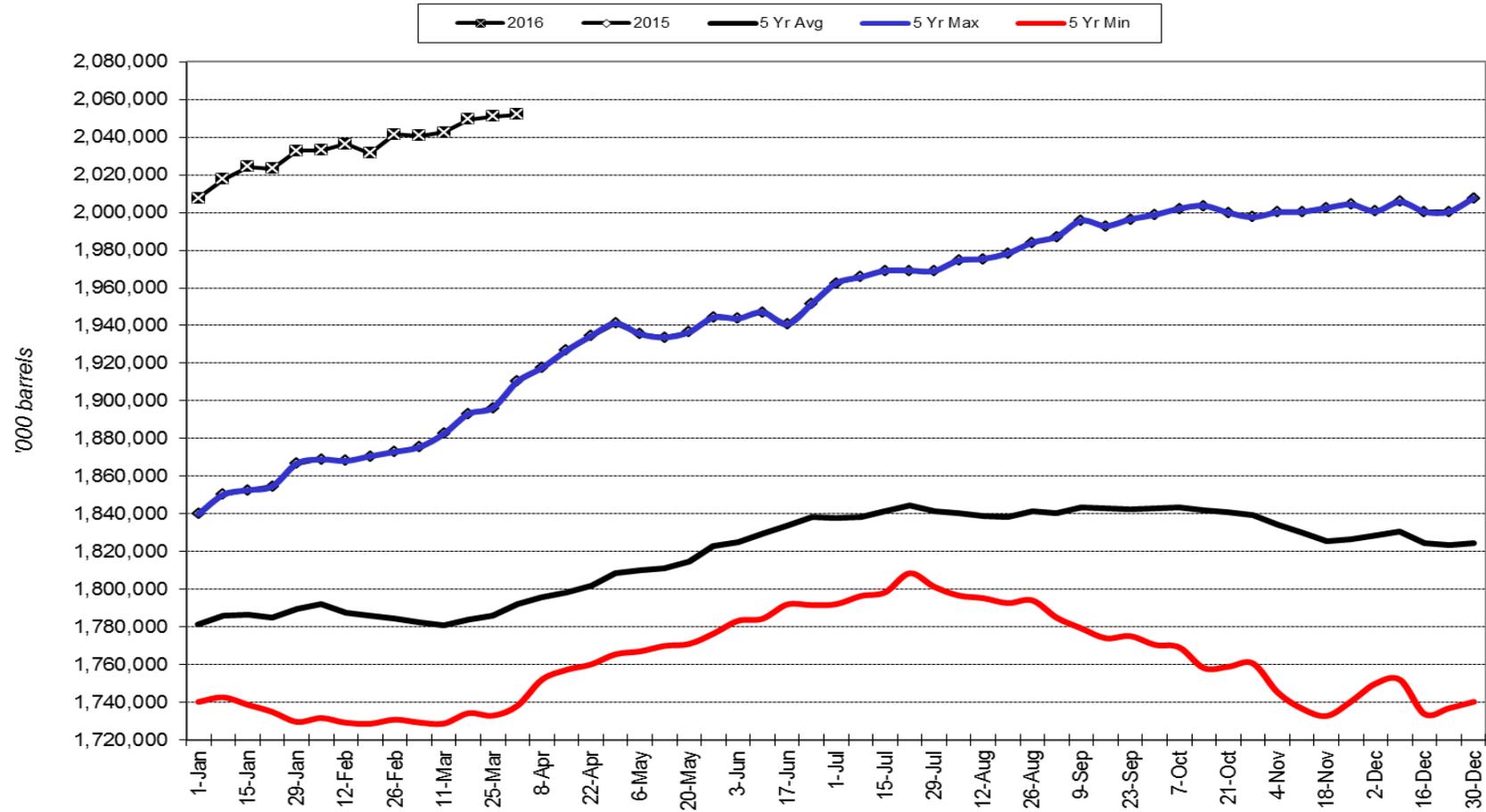
- Pipelines
- Refineries
- Processing Plants
- Power Generation

**Attributes**

- Geospatial
- Categories
- Commodities
- Tags

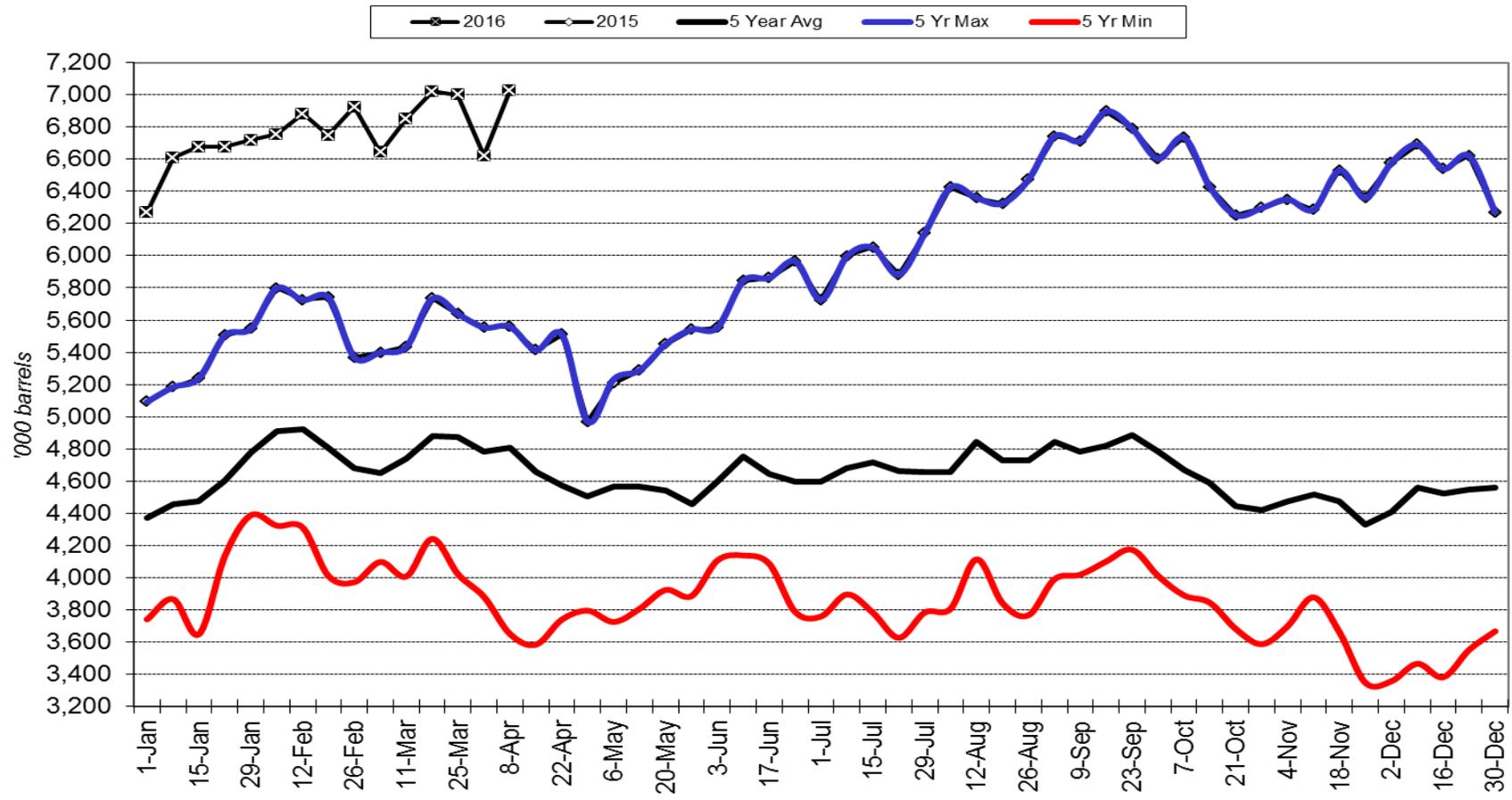
# US Total Petroleum Inventories

US TOTAL PETROLEUM STOCKS WITH SPR - EIA



# European Inventories

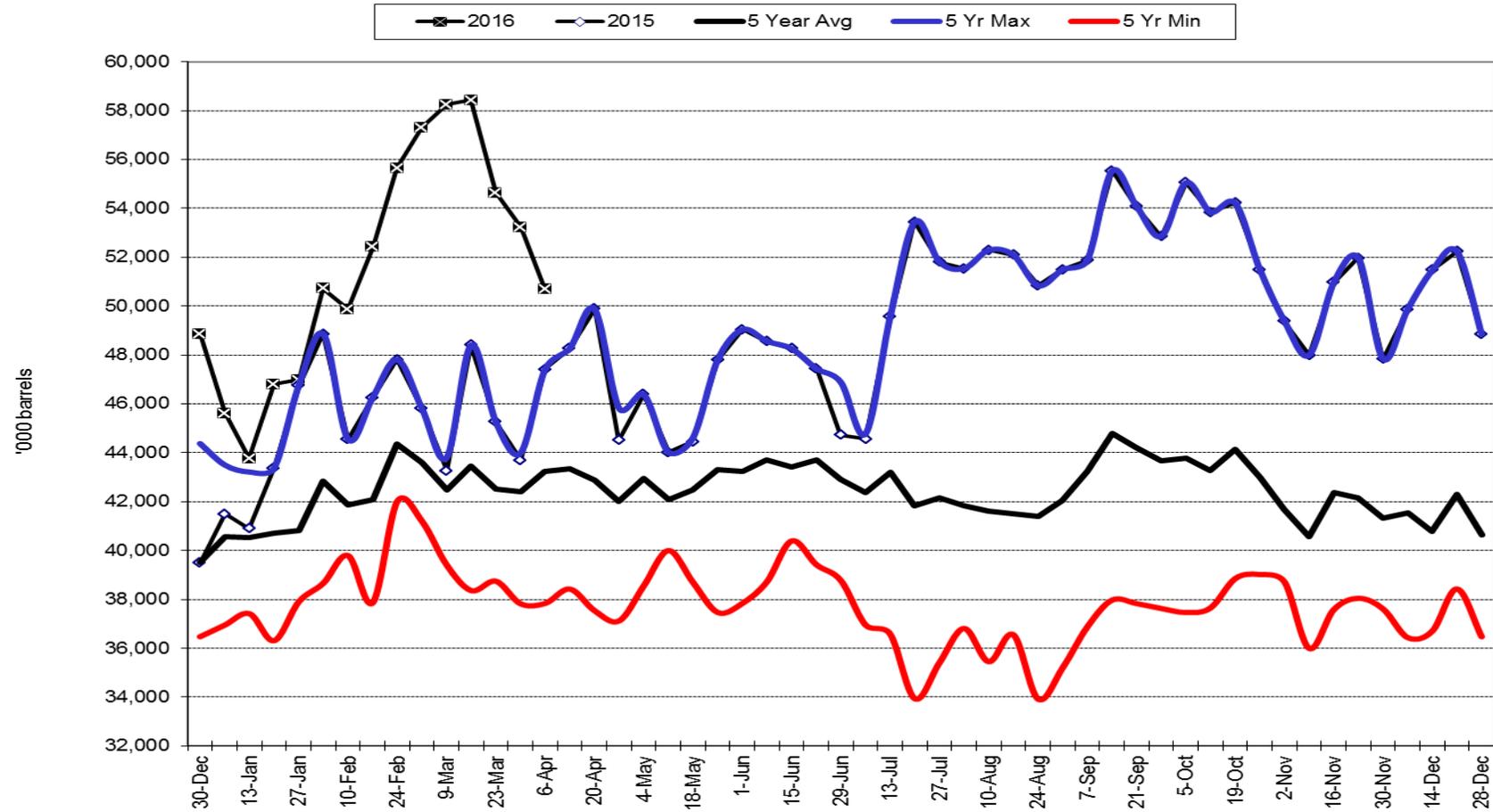
## ARA Total Petroleum Stocks



Source - PJK/Bloomberg

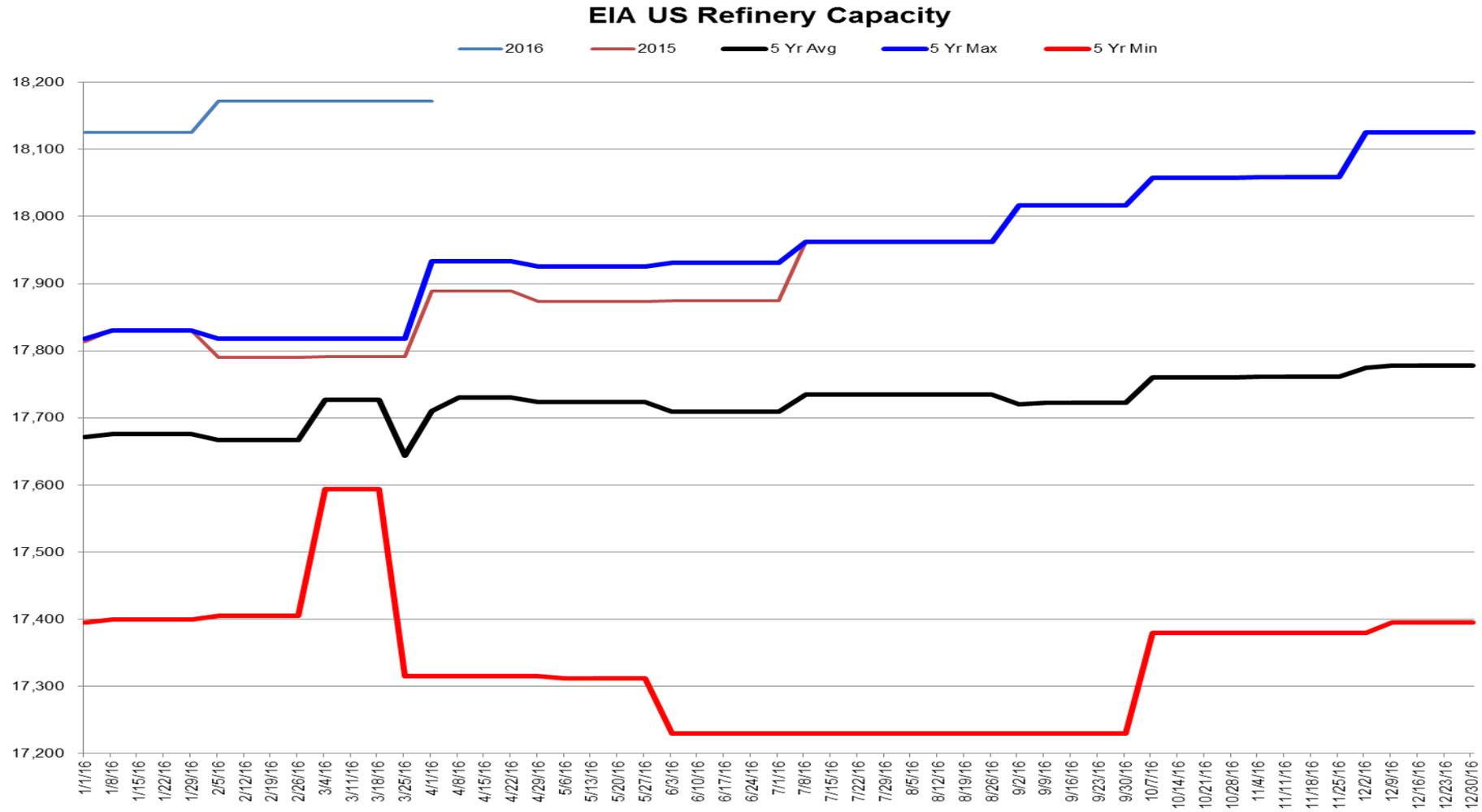
# Singaporean Inventories

## SINGAPORE TOTAL STOCKS



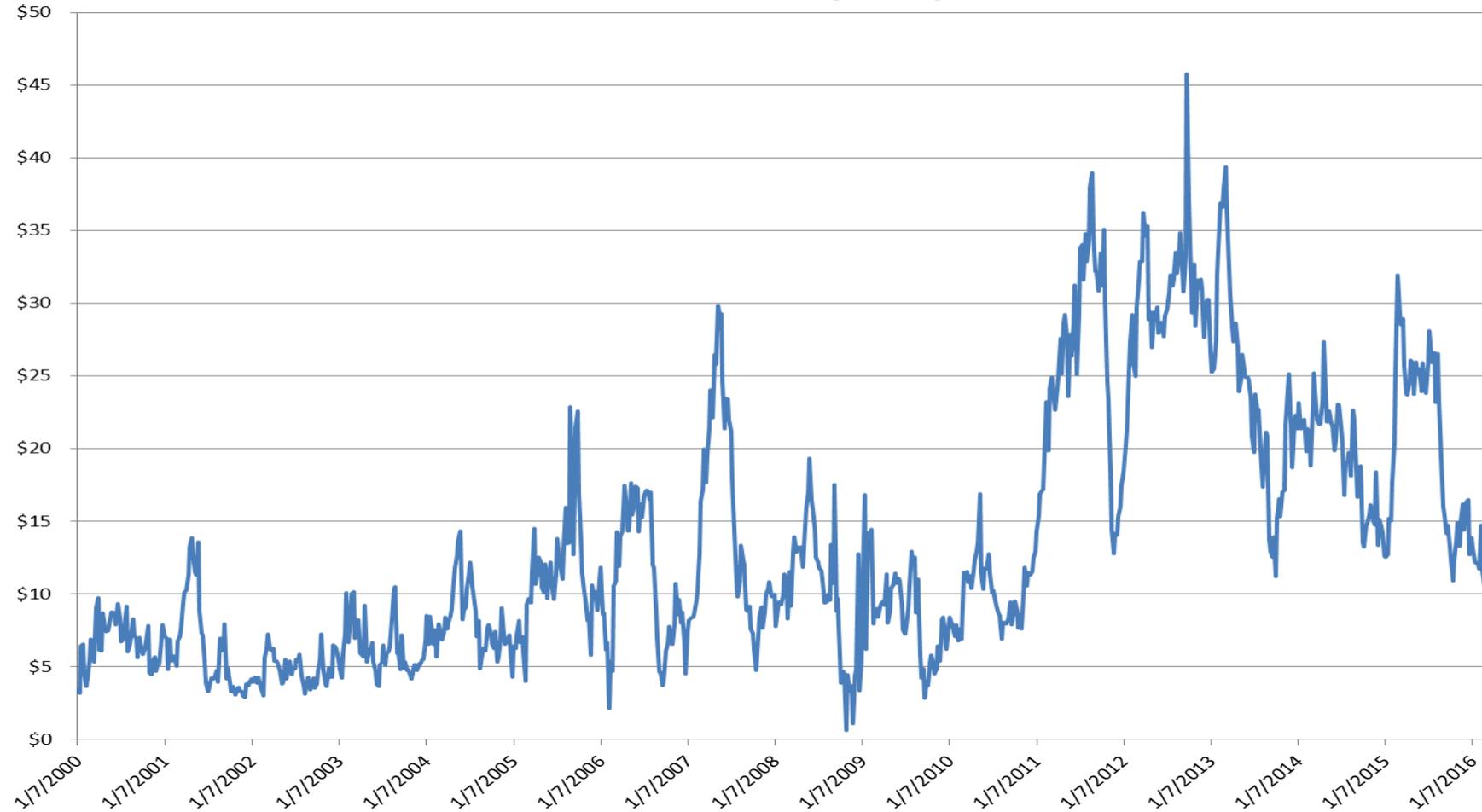
Source - International Enterprise Singapore/Bloomberg

# US Refinery Capacity

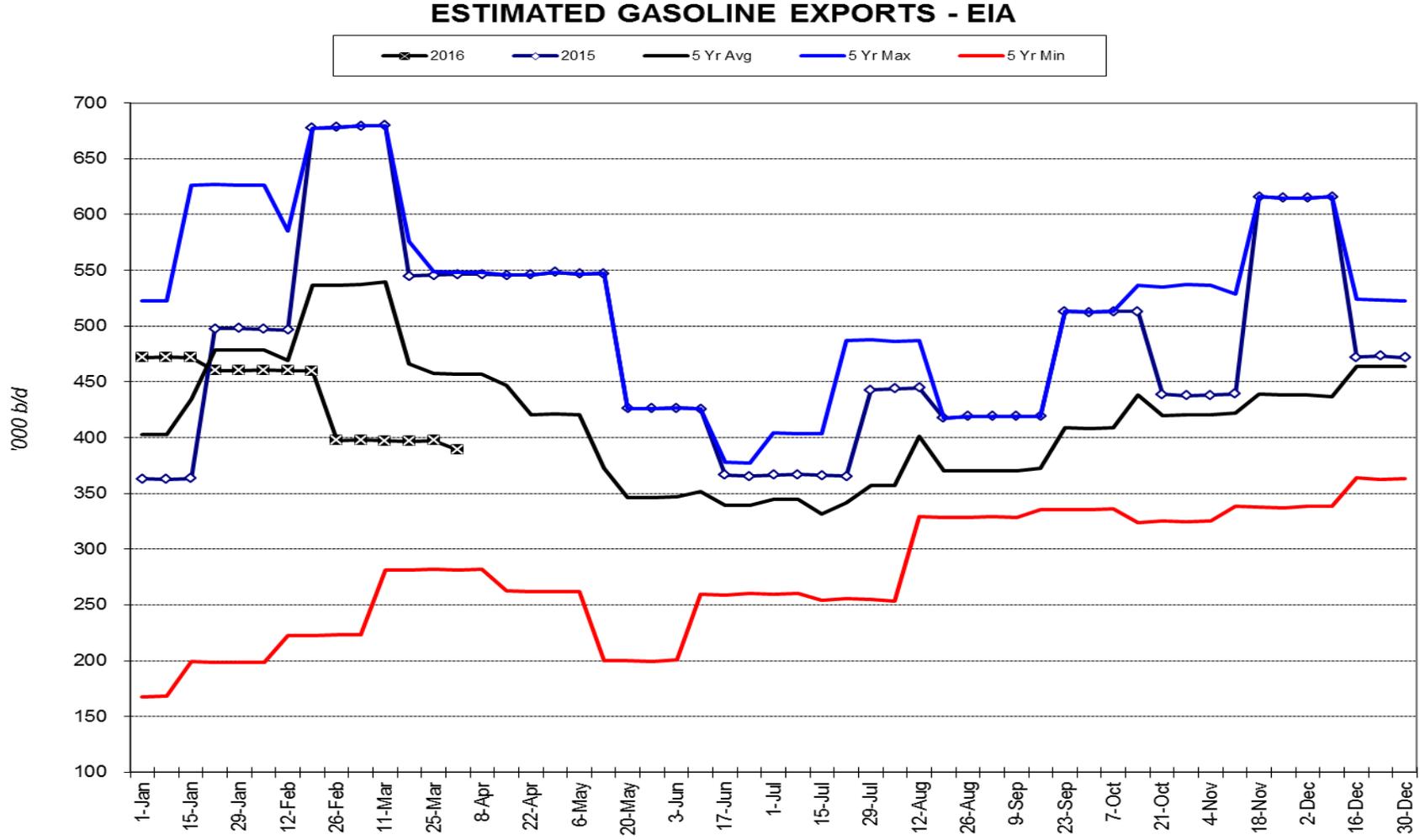


# Financial Margins

## CME 321 Refining Margin

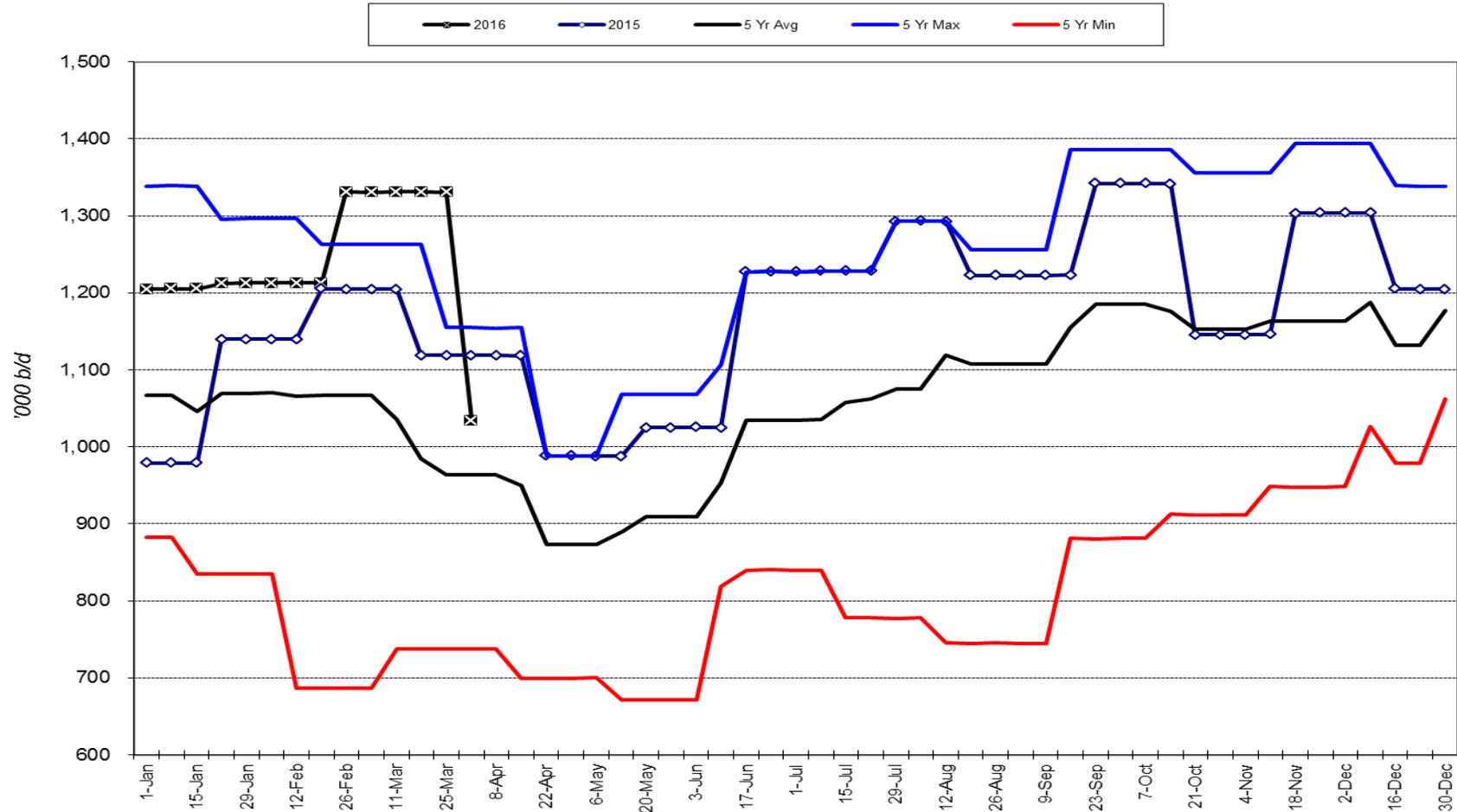


# EIA Gasoline Estimate Exports



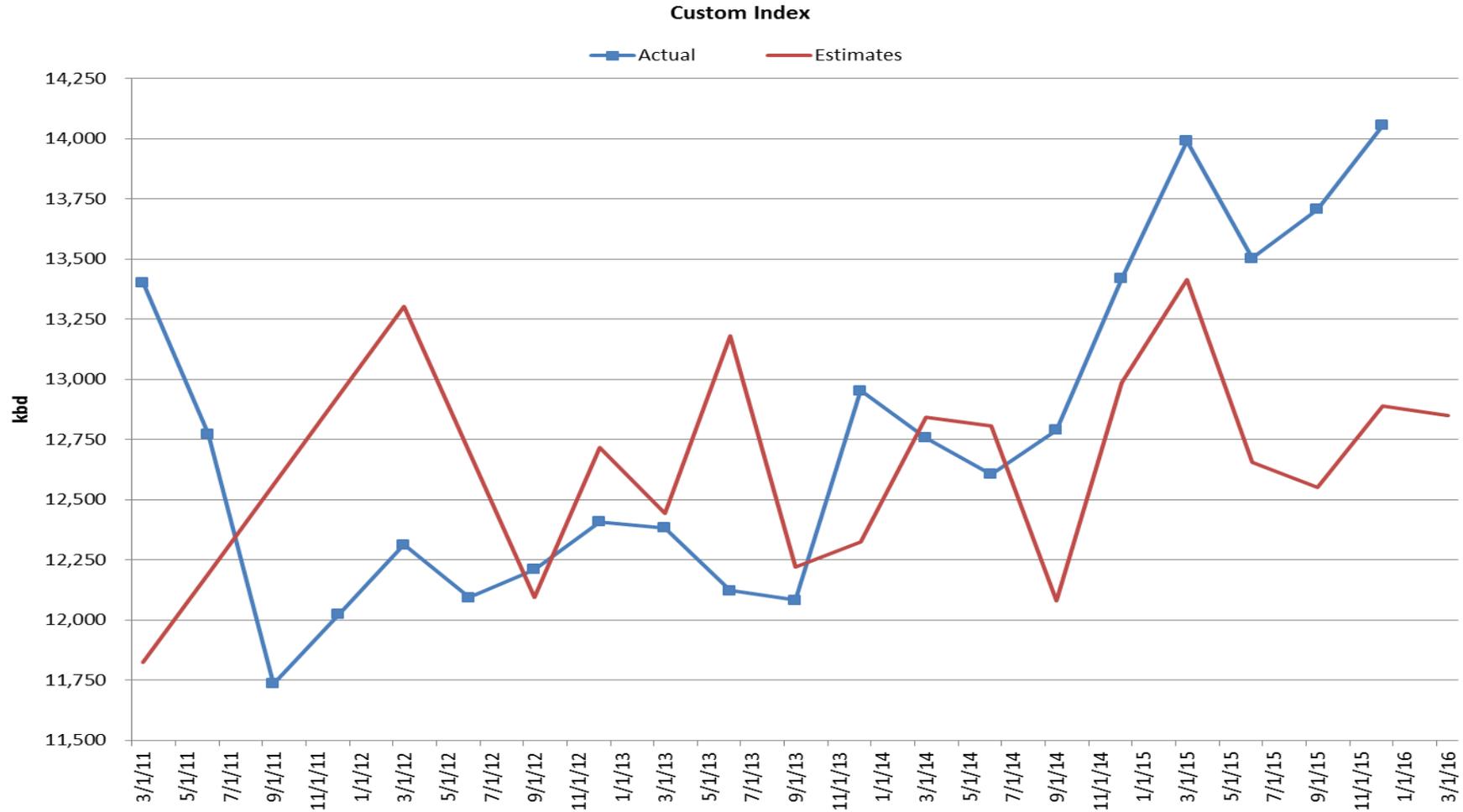
# EIA Estimated Distillate Exports

## ESTIMATED DISTILLATE EXPORTS - EIA



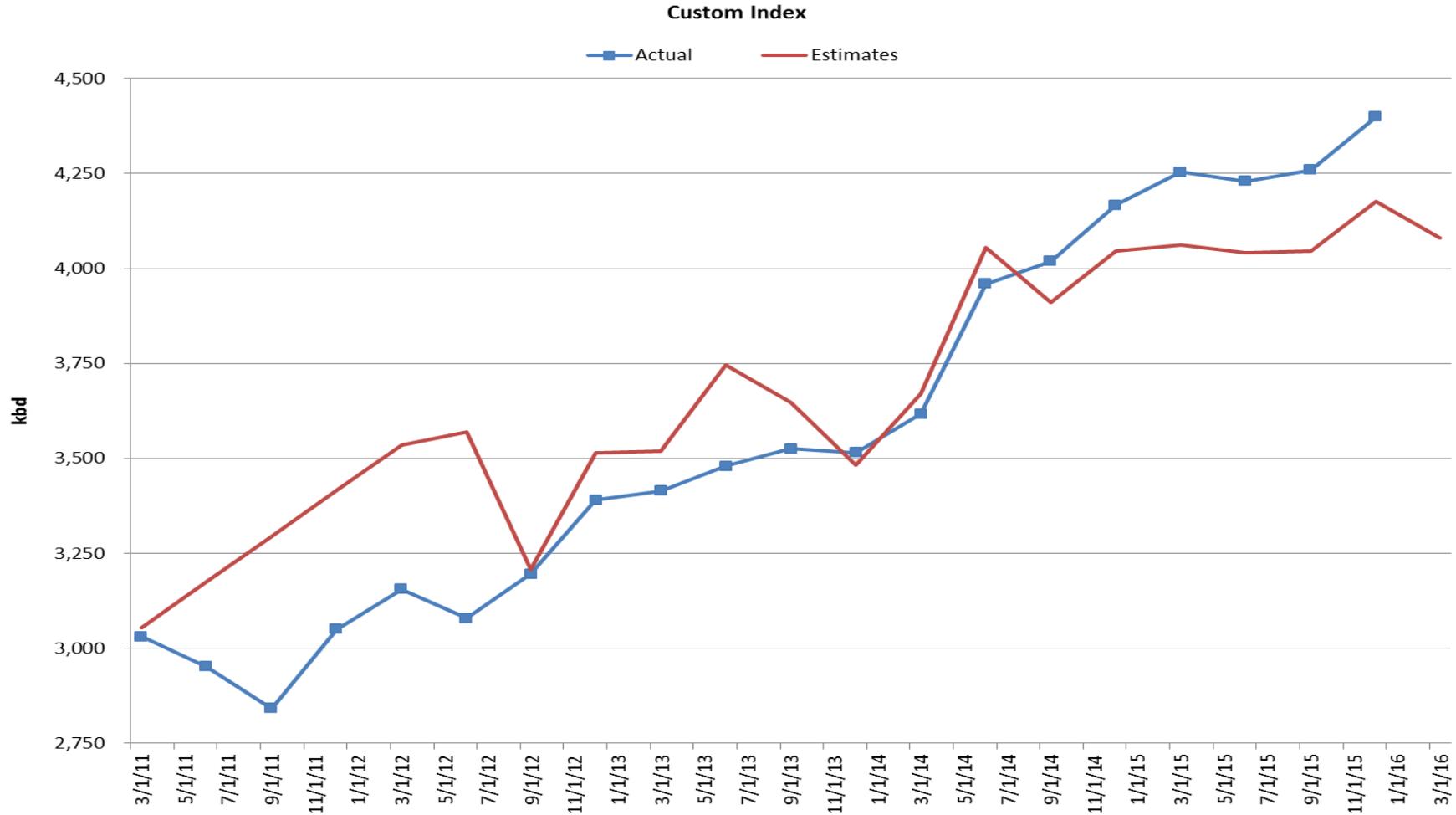
# World Oil Production from Company Reports

## World Actual Reported Oil Production Vs Estimates



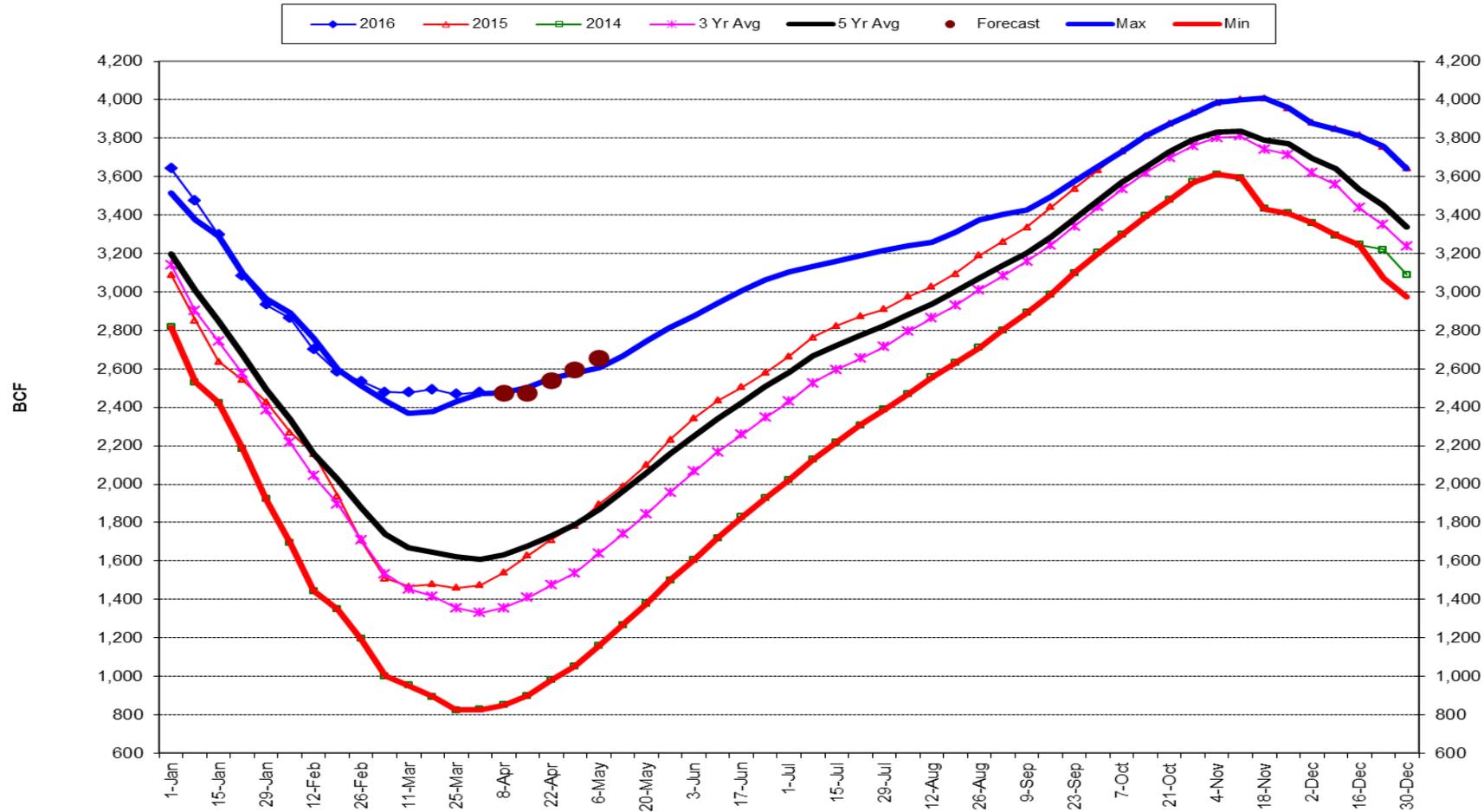
# US Oil Production from Company Reports

## US Actual Reported Oil Production Vs Estimates



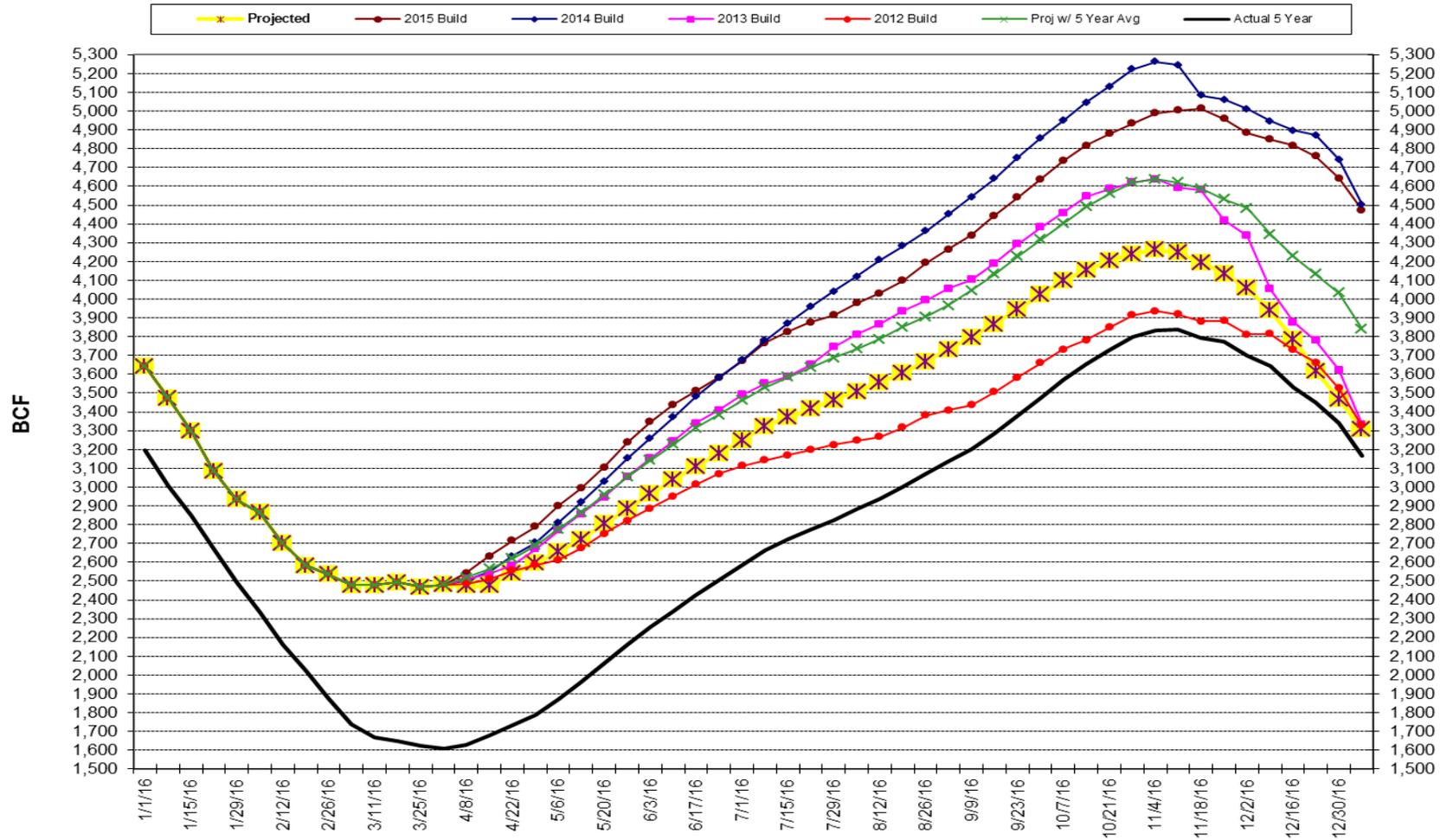
# US Natural Gas Storage Levels

US Total Working Gas Storage - Source - EIA



# US Natural Gas Projected Storage Levels

## EIA Total Projected Storage



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# Summary/Conclusions

- Petroleum inventories beginning to slowly clean up
- US refining in much better shape and should remain healthy
- Exports remain supportive, but recent weakness is concerning
- Oil production continues to beat estimates
- US natural gas expected to clean up faster than oil

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# Thank You

Please contact Criterion Research for additional information